Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ABORIGINAL REMAINS IN THE CHAMPLAIN VALLEY

THIRD PAPER

BY G. H. PERKINS

IN the two papers preceding this[1] the writer has attempted to describe and figure many of the most characteristic objects that have been found and preserved in the region usually included in the Champlain valley. Here, as elsewhere, some extremely valuable articles, notably those of earthenware, have been lost or destroyed by ignorant finders, but there has been some advantage in this ignorance, for, because few have understood the value of the strange objects which have been exposed by plow or spade, there has been no attempt at deception in regard to them, and I do not think that the manufacture of "Indian relics" has ever been undertaken in this region. Hence we may feel quite sure that all the objects in our collections from the Champlain valley are what they are represented to be.

Probably because of the meeting in this valley of Algonkin and Iroquois and the occupancy of now one site and then another by families of one or the other of these peoples, we find considerable variety in the stone and other objects found.

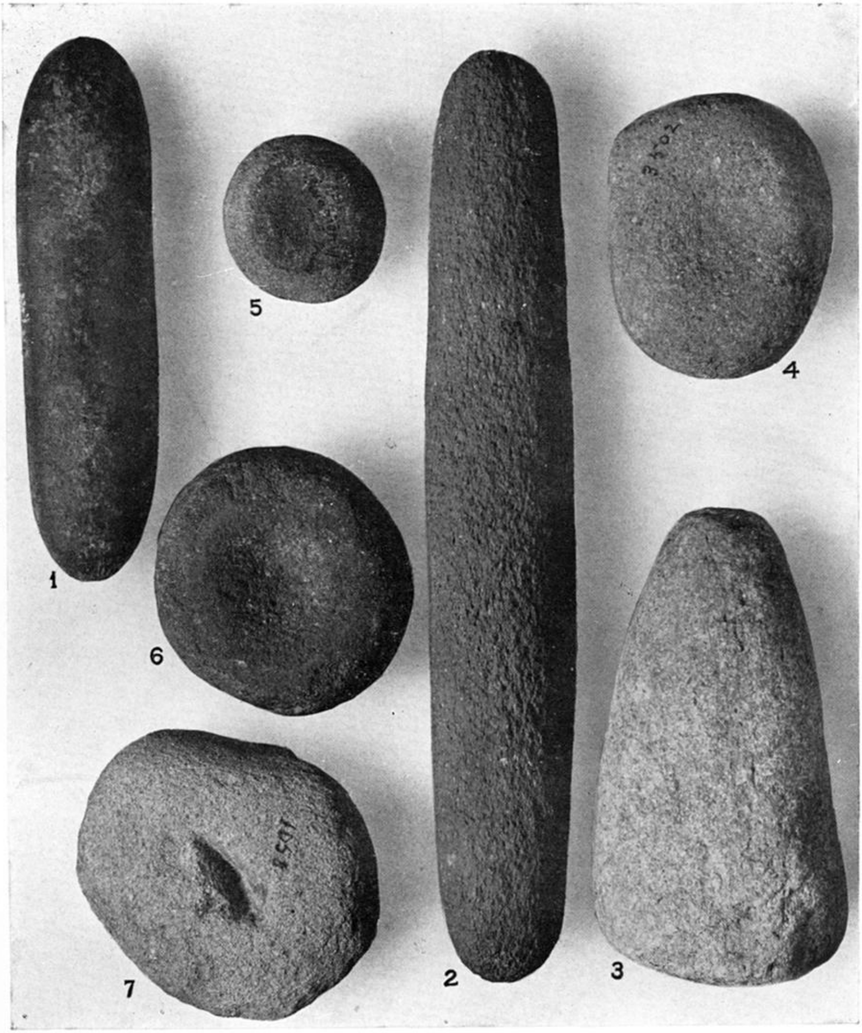
Besides the specimens mentioned in the former papers there remain several kinds which should be added to the list, or it will be quite incomplete. As will be seen, some of the implements to be noticed are among the most conspicuous in our collections.

HAMMER-STONES AND PESTLES

Hammer or pounding stones are more abundant in this region than any other class of objects except those chipped from quartzite, although much less widely distributed than the latter. Naturally, implements used in pounding would be largely confined to camp or village sites where a stay of some duration was made. In a

---

[1] *American Anthropologist*, N. S., vol. XI, 607; vol. XIII, p. 239.



STONE IMPLEMENTS FROM THE CHAMPLAIN VALLEY

(One-half size.)

region strewn by drift furnishing bowlders of all sizes and of hard material, these would supply the need for such implements as those named. No artificial shaping could improve the form of many of the drift stones, and, while pounders were not infrequently made from small blocks of quartz or similar stone which were chipped or flaked, by far the greater number were simply the drift pebbles worked very little or not at all. They are of all sizes and weights, from a few ounces to several pounds. It is noticeable that while the flaked specimens are nearly or quite spherical, those pebbles used as hammers are more often oval and flattened on two sides. Most of these, as in other localities, are marked as hammers only, but conclusively such by the abrasion of the ends.

While there would seem to be no necessity for putting work into an article that could be picked up ready made, we do find now and then specimens that are worked all over.

Pl. I, 4, 6, and pl. II, 17, show some of the rudest specimens, as does pl. II, 18, though the last seems less rude, as the quartz pebbles used were very smooth and regular when taken. From these wholly unworked pounders we find in the same locality various grades to those like pl. II, 6, which are not only smoothed over the whole surface, but cupped on each side in order to insure a firmer hold. Few of our pounders are as small as that shown in pl. II, 18, but occasionally such little specimens—only three inches long and of small weight—are found. Stones similar in form to that shown in fig. 6 are found which bear no mark of abrasion and which may well have served as small mortars. Whatever their use, these cupped stones are always carefully made. From the simplest forms, like that of pl. I, 4, there may be found in our collections a regular series until we have the larger pounders like that shown in fig. 3, and the one more carefully finished in pl. II, 13, and finally those grooved for the attachment of a handle as in pl. II, 15.

As may be noticed, the last form is very much like the meat pounders used until recently by the Dakota. These Indians attached a handle by means of a piece of rawhide, which covered the stick used and was carried about the groove in the stone. Evidently this rawhide was put on when wet and shrunk to a tight fit when dry. It is possible this may have been the ancient method as well. While on the one hand the oval or globular hammer developed into the pounder, like pl. II, 15, the more cylindrical pebble like pl. II, 8, in which only the ends are worked, developed into the carefully wrought implement such as that shown by pl. I, 2. Long, cylindrical pebbles, such as pl. II, 8, are not common, and the long pestle was most often made from a bit of stone broken from a larger piece. Much labor must needs have been expended in fashioning such an angular fragment into the regular and well-finished specimen.

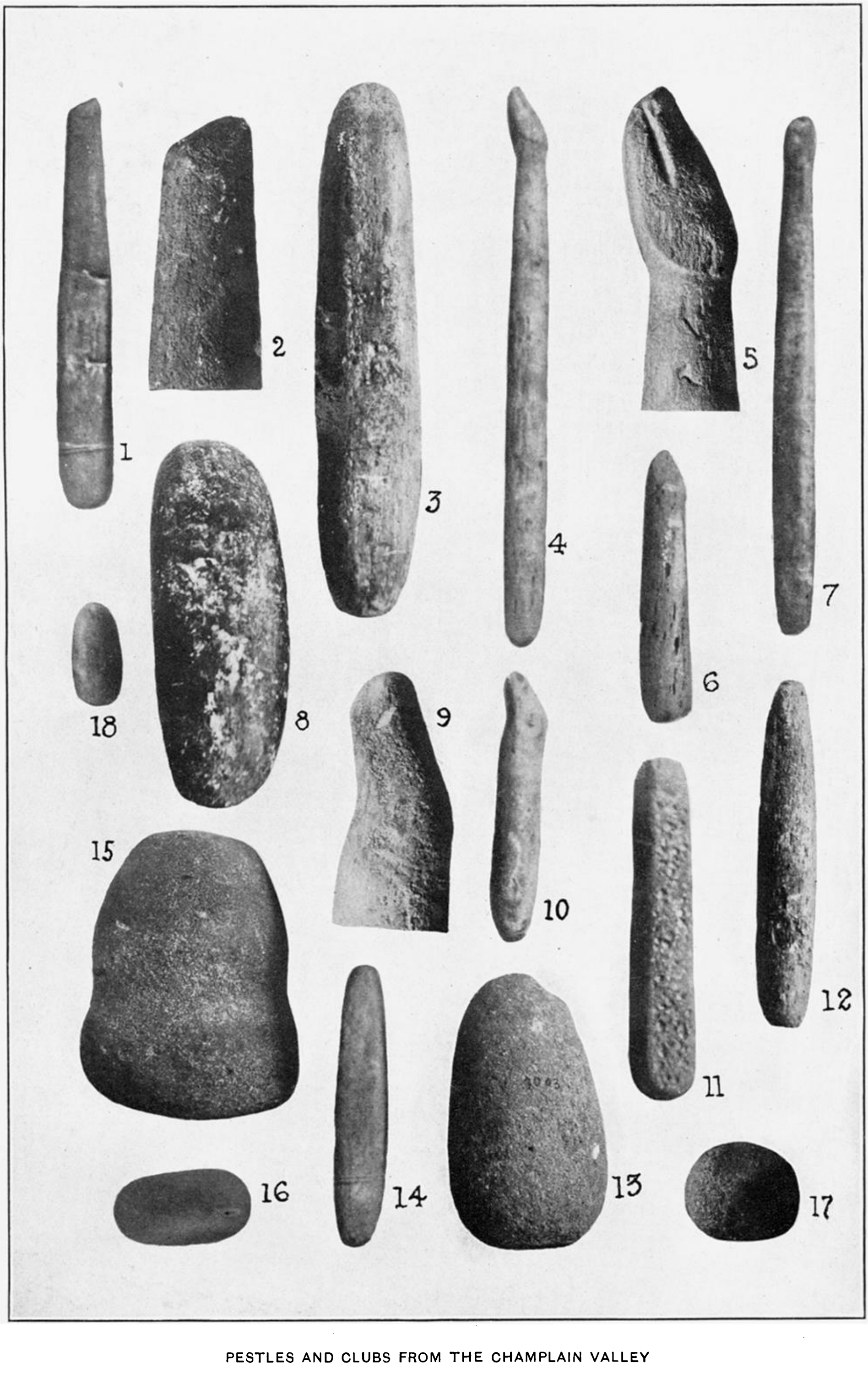
Pl. I, 1, 2, and pl. II, 3, 14, show examples of our ordinary pestles of the better sort. The material as well as the size of these pestles varies greatly, but necessarily only hard stone could be used. The average specimens are twelve to fifteen inches long and weigh from eight to ten pounds. The largest that have been found exceed two feet in length, and weigh twenty to twenty-seven pounds.

The pestle shown by pl. II, 11, is of hard limestone. Two sides are carefully smoothed, two left untouched as the prints of fossils show.

Pl. II, 1, 2, 4–7, 9, 10, are what have been called effigy pestles. They are all rounded at one end and carved in the likeness of animal heads at the other. It may be noted that the illustrations do not show the form of the head in all cases as well as might be desired. In the actual specimens the form of the head is often more distinct than in the figures given. For several reasons I am inclined to regard these as clubs rather than pestles. They are more slender and therefore more easily broken than the undoubted pestles; they are of softer material, and they show little sign of use.

Some, as pl. II, 4, 7, are very long. That shown in fig. 4, of light-green mica schist, is twenty-seven inches in length and nowhere more than two inches in diameter. Fig. 7 is nearly as long. The upper end of 4 is carved to represent a head shown better in fig. 5. This is the best specimen of this sort found; but a considerable number of others, more or less well done, have been recovered.

The difference in form, and also in other respects, between these Champlain valley pestles and those from the Mississippi valley or farther west will be apparent to anyone familiar with the western



PESTLES AND CLUBS FROM THE CHAMPLAIN VALLEY

(1, 4, 6, 7, 10, about one-ninth size; the other figures are one-third size) forms. Pestles are not abundant in this region, and it is remarkable that this is true, for, when settled at least, each Indian family must have needed a mortar and its related pestle for the preparation of their daily food. When the size and durability of such implements as these are considered, it seems almost certain that if they really were as common as might be expected, many more of them would be found.

Among those specimens that at first sight appear to be allied with hammers are some forms not very common, but still not especially rare, which are very puzzling.

Pl. I, 5, 7, are of this sort. The specimen shown in fig. 5 is much more carefully made than is usual in hammers. The illustration does not show fully the difference between such an object and that shown in fig. 6, but the smaller specimen is much more elaborately shaped and its surface is smoothed on every part. As in the case of fig. 5, these finer objects are smaller than the hammers. The upper and lower surfaces may be cupped, though not deeply, or flat, and the edges are evenly beveled, as is not too well shown in fig. 5, so that there is a sharp ridge about the middle. It seems more probable that these specimens were more closely allied to the discoidal or chungke stones than to hammers; that is, they were for use in playing games.

More problematical is the specimen shown in fig. 7 of pl. I. Stones of this sort occur of various sizes: some are quite large, few smaller than fig. 7, which exceeds three inches in its long diameter, being shown about half its full size. Some of these are quite rude, others, as in the figure, are more or less smoothed over the entire surface. The material is usually hard and gritty, and the hollow is of the form seen in the figure.

It would seem most likely that such stones were used in sharpening bone awls, or some such instruments, or at first in shaping the points.

BOILING STONES

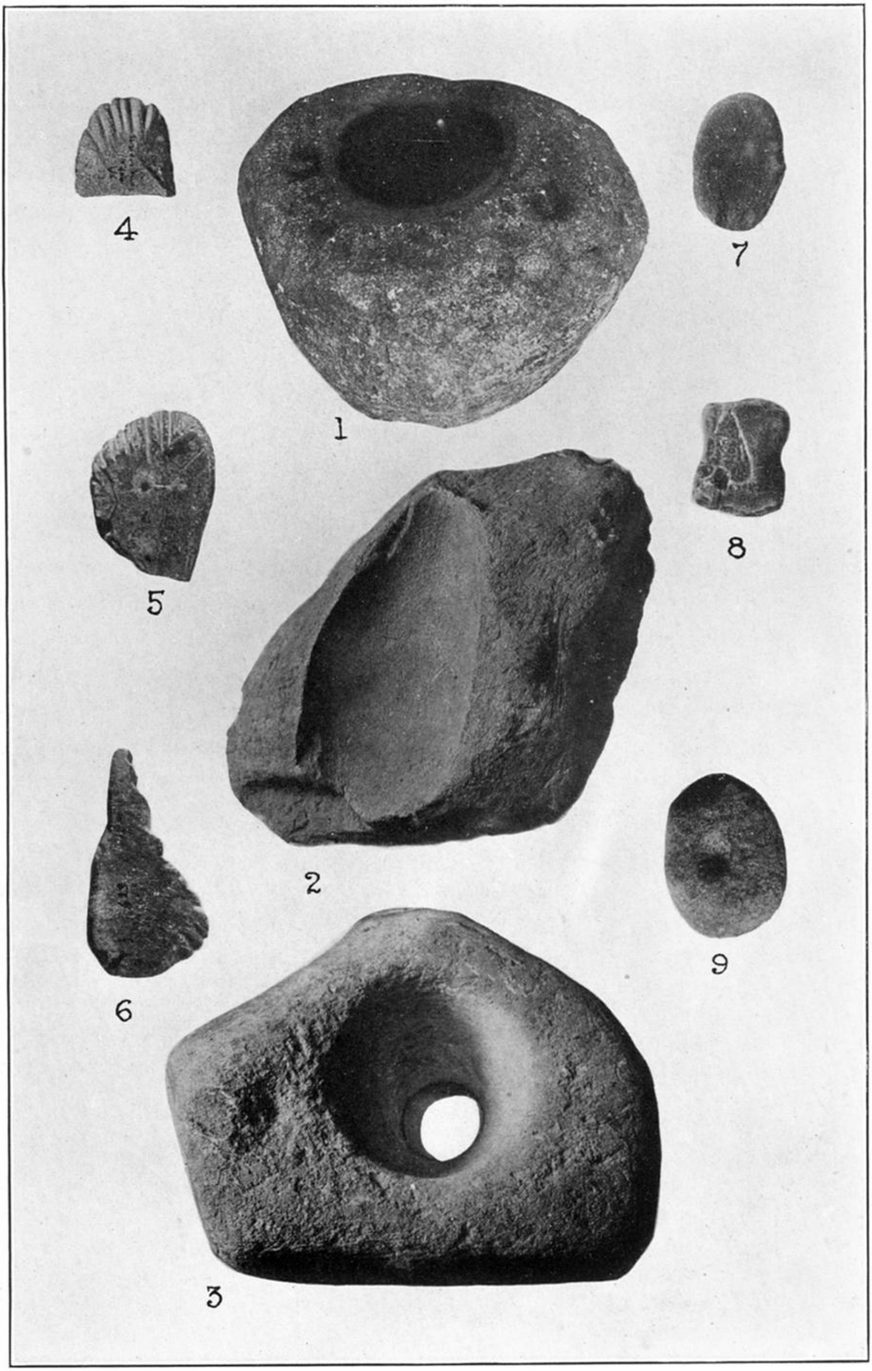
Stones precisely like the hammer-stones in form are frequently found in the same localities, that is about any camp site. Obviously, the same drift pebbles were selected for use as hammers or to be heated and put into pots of water in order to cook whatever might be needed. As was shown in the first of these articles, nearly all the vessels used by the aborigines were of earthenware, and these were for the greater part too fragile to endure long suspension over the camp-fire. As is well known, cooking was accomplished in such pots, without placing them over the fire, by putting hot stones into the water they contained. The abraded ends mark the hammer, and the reddened and cracked surface marks the boiling stone. None of these are as large as the largest pounders, and they are more uniform in size. Of course similar stones that chanced to be about the fire would show the same signs, though not used.

MORTARS

As has been intimated in speaking of pestles, mortars are not at all abundant in the Champlain valley. This is difficult to explain, for if any of the implements and utensils of the aborigines were to endure and be easily found in later times, none would appear to be so likely to exist intact to the present time as these. Nevertheless, I have seen not more than a dozen or so. Some of the larger mortars, either whole or broken, were used in building stone walls as any suitably sized stones would be used, but this can account for only a small number.

Pl. III shows three of the best of our mortars. As in case of these, each specimen is in some respects unlike any others. Of the three figures, 1 and 3 are shown about one-fifth full size, and fig. 2 one-ninth. The latter is one of the largest that has been found here. All exhibit the result of much labor, not merely in the excavation but also in shaping and smoothing the whole surface.

Fig. 1 of the plate was made from a small bowlder of reddish granite that was found in the drift. Whether its form is as found, or more or less hammered to its present shape, cannot be determined with certainty, but in portions of its surface it has evidently been rubbed artificially and the entire surface is smooth as if waterworn; but of course this would be the case in any drift rock. The cavity shown is very well shaped; it is five inches in diameter and two and a half deep. On the opposite side of the stone is a similar



MORTARS, ETC., CHAMPLAIN VALLEY

(1 and 3 about one-fifth size; 2 about one-ninth size; the others one-fourth)

cavity, but somewhat larger than that shown. What particular advantage there was in having a hollow on both sides of the stone, when only one could be used at a time, is not evident. Another noticeable feature is seen in the small cup-like cavity on each side of the large one. Stones like that seen in fig. 9, in which there is only one small cavity, are not uncommon. To these reference will be made later.

Fig. 2 shows one of our largest mortars. It was shaped from a large piece of flat stone, as seen in the figure. The material is gray quartzite; the greatest length of the object is 27 inches, width 17, and thickness 4 to 5½. The unusual form of the excavation makes this mortar a connecting link between the regular mortar and the flat metate. This cavity is 15 × 10 inches, and where deepest it is 4 inches. The weight approximates fifty pounds.

In fig. 3 is shown another form, fashioned from a large piece of greenish sandstone, much like that from which ordinary grindstones are made. As the figure shows, the cavity is deep and regular, and has no bottom. Apparently after the side shown was finished, some one, either carelessly or because the stone was turned down on the side seen, began to make a cavity on the opposite side, breaking through into that already made. The surface has been rubbed and somewhat shaped. This mortar is 14 inches long and 9 inches wide. The greatest thickness is 3½ inches. The cavity seen is 5 inches in diameter. A small depression at the left of the large cavity will be noticed. In this specimen, besides the shallow excavation on the side not shown, which broke into the completed one, there is another at the left end of the mass, which, though not very deep, has about the same diameter as that shown.

Stones or bits of ledges, which bear only small cavities like those at the sides of the larger ones, or the cavity shown in the small stone in pl. III, fig. 9, are not uncommon. Sometimes a flattish piece of stone, five or six inches in diameter, has only one, or it may be two or three, of these little cups or cavities an inch or so across and usually but a fraction of an inch deep.

SINKERS

Pl. III, figs. 7, 8, show two examples of objects common in certain localities, but not widely distributed. They occur near lakes or large ponds, but nowhere else. The usual supposition that they were used for sinkers attached to nets or large lines seems most probable. They are generally merely flat bits of stone or flat pebbles notched on each side, but with little other evidence of having been worked. They are three or four inches long. Occasionally is found one of these sinkers that is more carefully made and is smoothed over the whole surface.

SINEW STONES

Pl. III, 4, 5, 6, illustrate peculiar grooved stones such as those which in other localities have been called "sinew stones," designed for use in preparing cord from sinews of animals. They are of hard, compact material, and are generally well made, though there is no attempt at ornament. All of our specimens are flat and at one end always rounded, as seen in the figures. Such objects are not very uncommon in the Champlain valley.

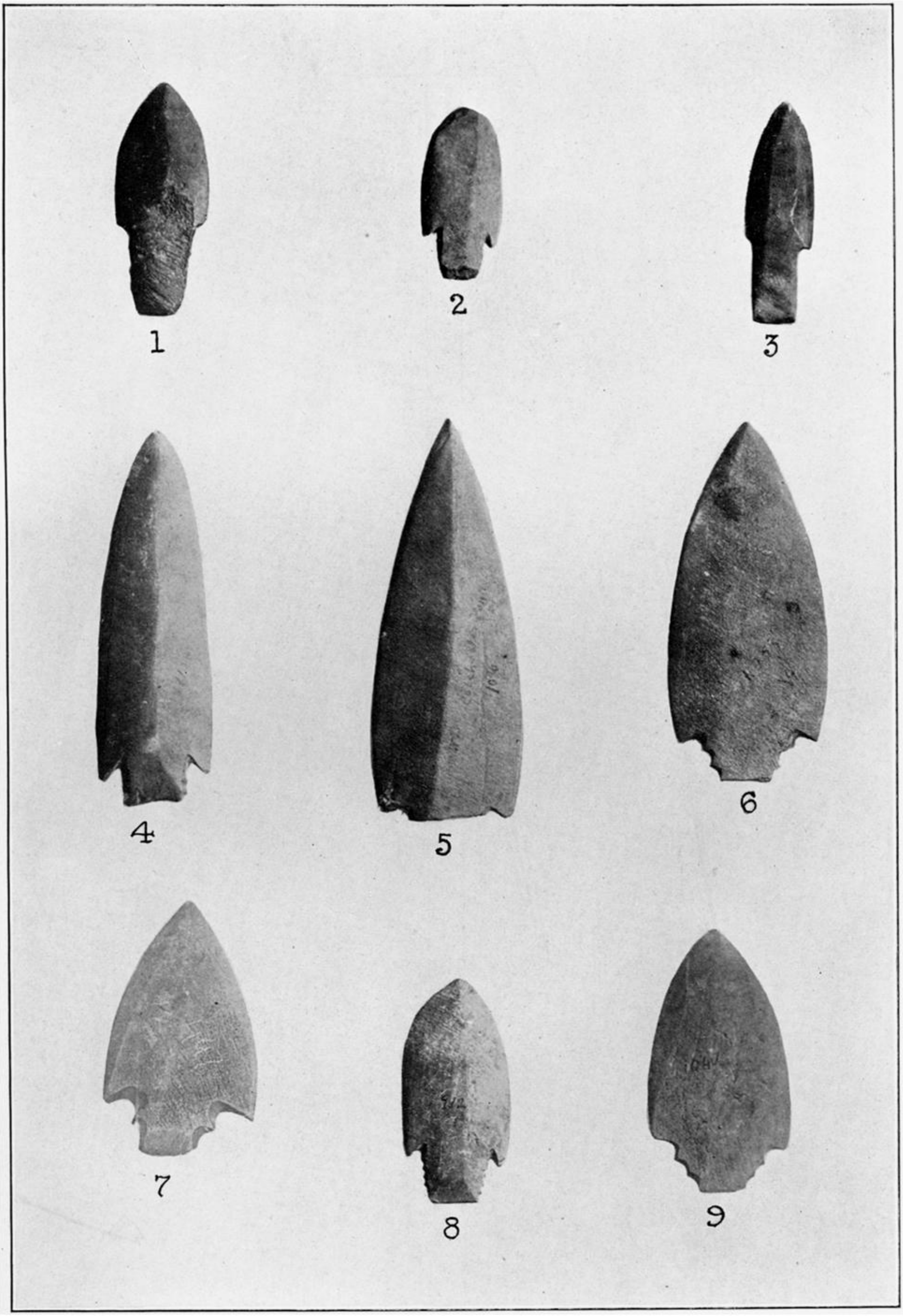
OBJECTS OF SLATE

In the first of this series of articles slate knives and points are mentioned, and four of them are figured on one of the plates. At that time there was no intention of considering these implements further, or the whole matter would have been left for the present paper, so that all might have been considered together. On looking over our collections, so many of these slate knives, etc., have been noticed that it seems worth while to give them more extended notice. The specimens first figured[1] are similar but not the same as those shown on pl. IV and V.

While these slate knives are by no means confined to the Champlain valley, but are found north in Canada, west in New York, and, rarely, in Maine, they are yet among our most characteristic specimens, and are probably more abundant and varied here than elsewhere. With some exceptions these implements are always

---

[1] *American Anthropologist*, N. S., vol. XI, pl. XXIX.



SLATE KNIVES, CHAMPLAIN VALLEY

(One-half size)

hafted, often barbed, and usually notched along each side of the shank or haft. The figures on pls. IV and V illustrate a fairly full series of the different forms that have been found. They are almost always regular in shape and smoothly finished. The variously colored slate—red, purple, or drab—from which they are made is found abundantly in place in western Vermont and adjacent parts of New York, and is also not infrequently found in the drift along the shore of Lake Champlain, having been carried northward by the ice and currents of the lake.

There have been found a few specimens that seem to have been only partly completed, and thus show that the bit of stone, ordinary roofing slate, was chipped into some semblance of the desired form and then rubbed with sand until smooth and in some cases polished. Usually the work was very well done; indeed none of the ordinary implements are so nicely shaped and smoothed as these. The edges are usually sharp; but in some specimens they are rounded, and apparently were never fitted for cutting.

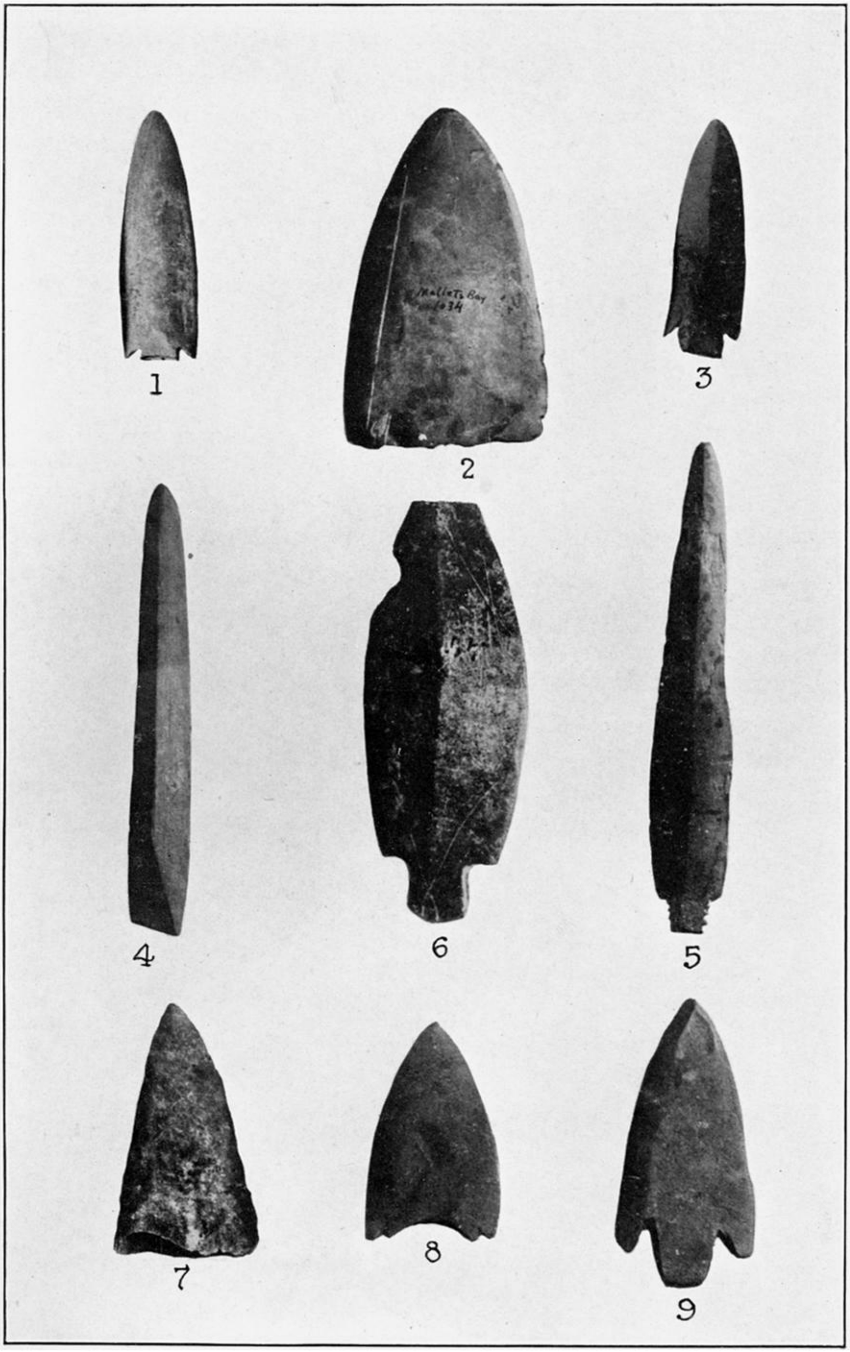
The resemblance of these objects to some of the Eskimo knives has long since been noticed by various authors. Indeed, some have found sufficient similarity to suggest the idea that at some time there was an Eskimo migration or at least a visit to this region. Few will, I think, find convincing evidence of this in the presence of these slate knives.

It seems difficult to understand how many of these objects could have been serviceable as knives, though the form suggests this implement, for the material is too soft and fragile to endure hard use. Most of the specimens shown half-size on pl. IV are strong enough to have served as knives. The notched stems mentioned above can be readily seen in figs. 7, 8, and 9, and less distinctly in some of the others. As shown, some of the notches are large and few, others smaller and more numerous. Occasionally, as in fig. 3, the stem is not notched, but this is exceptional.

On pl. V, 1–7 (shown one-third size) are illustrated our largest examples of this kind. Such implements as that represented in fig. 2 of this plate may well have served as skin-dressers or for use in making pottery, but, like most of the rest, they are not hard enough for wood-working, and still less for working stone. The specimen shown in fig. 4 is one of the most perfectly finished that has been found; it is not only regular in shape, but finely polished. It is eight inches long and nowhere more than an inch wide. It has no haft, nor does it show any sign of use. The material is light-green slate. More slender is the specimen shown in fig. 5, which has suffered from exposure, but was probably as well finished originally as that illustrated in fig. 4. It is nine inches long, and at the widest part an inch and a half, though most of the blade is narrow. It is quite thin, and certainly could not have endured other than careful usage. As seen, there is a small haft, not very deeply notched, along the sides. Both of these objects may possibly be regarded as daggers, but it is not probable that either could have been used more than once. The implement shown in fig. 8 is peculiar, not only in the absence of a stem, but in the smoothly rounded lower edge. This, as well as fig. 9, is one-half size.

The specimen shown in fig. 6 is the only one of its kind that I have seen. The original form of the upper end is doubtful, as it is broken, but apparently it was pointed. It is figured more nearly full-size than the other specimens, being 3½ inches long and 3½ wide. Of course when complete it was somewhat longer—about 5 inches long, I should judge. The material is a light drab slate.

University of Vermont
Burlington, Vermont



SLATE KNIVES, ETC., FROM THE CHAMPLAIN VALLEY

(1 to 7 one-third size; 8 and 9 one-half size)